ACCESSION NUMBER

ED 049 432 EC 031 502

AUTHOR Fredericks, H. D. Rudi; and Others
TITLE A Validity Study of the Diagnosis and Placement of Certified EMR Pupils in Oregon.
INSTITUTION Oregon State System of Higher Education, Monmouth. Teaching Research Div.
SPONS AGENCY Oregon State Board of Education, Salem.
PUB DATE 70
NOTE 77p.

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS Admission Criteria, *Educable Mentally Handicapped, *Educational Diagnosis, *Exceptional Child Research, Placement, Progress Evaluation, Student Evaluation, *Student Placement, Test Validity
IDENTIFIERS Oregon

ABSTRACT

In order to determine the validity of placement procedures for the educable mentally retarded (EMR) in Oregon and to examine the value of documents used in certifying EMR pupils, a diagnostic evaluation was made on 97 children who were permanently certified as EMR during the years 1967-68 (IQ scores of 50 through 80). The children were administered medical examinations, educational and psychological tests, and were rated by their teachers on the Walker Behavior Checklist. Results showed that only one child from the sample of 97 was inappropriately placed in an EMR class. Although IQ scores revealed 14 other children with IQ's above 80, it was concluded that the evidence of educational performance and medical information justified the placement. In relation to the value of the forms used by the Oregon Board of Education, indications were made for the need of more stringent visual and hearing acuity tests and for the inclusion of standardized educational tests. The danger of placing a child in an EMR class primarily on the basis of an IQ score was emphasized. (KG)

EC031502

ED047432

A Validity Study of the Diagnosis and Placement of Certified ESEA Pupils in Oregon

EC 031 502

EC031502

A Validity Study of the Diagnosis
And Placement of Certified EMR Pupils
In Oregon

ISSUES CONNECTED WITH THE WALKER BEHAVIOR CHECK LIST

In the initial determination of the instruments to be utilized in the EMR Validation Study, it was determined to include the Walker Problem Behavior Identification Check List. That instrument was administered and provided information about teachers' perceptions regarding ALL EMR children. The results obtained through that check list were not included as part of the Validity Study of the Placements and Placement of Certified EMR Pupils in Oregon.

The purpose of this paper is to report the results of the Walker Behavior Problems Check List and to indicate an area of concern which may be appropriate to explore with teacher training institutions.

Description of Walker Problem Behavior Identification Check List

The Walker Problem Behavior Identification Check List (WPBIC) is not a personality scale. It is merely a reflection of the teachers' opinions as to whether a particular behavior is or is not manifested by the child. An examination of the scale indicates that the teacher merely indicates whether she says a particular behavior is present or not present.

For example, in Item 4 the teacher must state whether or not the child "becomes hysterical, upset, or angry when things do not go his way." Thus, the teacher is reporting behavior as she perceives it is in the child.

According to the scoring of the Walker Problem Behavior Check List, if a child in the fourth, fifth, and sixth grades scores higher than 21 on the check list, there is some evidence that the child is disturbed. The results of the check list should then be examined in more detail so as to determine the exact types of emotional difficulties or behavior problem difficulties that the child is manifesting. The scale is divided into five sub-tests, each of which are indicative of a type of behavioral problem. The sub-tests are as follows: Acting Out Syndrome, Withdrawal Syndrome, Distractibility, Disturbed Peer Relations, Immaturity.

Admittedly the WPBIC has not been normed on children in EMR classes. This does not, however, negate the fact that the scale reflects an adequate portrayal of the way the teacher views the child.

If the teacher of a "normal" child--that is a child who is not EMR--assigns these characteristics to a child, she says, in essence, that he has a behavior problem and requires such individual attention that she has difficulty coping with him.

If the teacher of an EMR child assigns the same characteristics to an EMR child, is she not, in essence, saying the same thing? Logically we must assume that she is and logically we must assume that she is having difficulty coping with the child.

We must also make the assumption which is supported by empirical research evidence that if the teacher, whether she be a teacher of "normal" children or EMR children is having difficulty coping with a child who is a behavior problem, little learning is occurring. We must assume that for learning to occur the child's behavior must be reasonably under control.

Values Problem Behavior Identification Check List Results

If we accept the assumptions above, an examination of Table I causes us to conclude that many children are in EMR classes exhibiting behavior problem characteristics which are disturbing to the learning process.

Table I shows an N of 214. This is a sample of a population of 1959 EMR children who are permanently certified as such in 1967 and 1968. 47% of all of these children are in the range of behavioral problem difficulties. However, in all fairness we must consider the test results only for those children comparable in age to those on whom the test was normed. These are shown in Table II. Of an N of 119, 56 are classified as disturbed for a percentage of 47.9%.

The reporting of these results is not meant as a criticism of the EMR program. However, they do indicate that teachers may well need assistance in an area that we have not perhaps devoted sufficient attention to prior to this time in our teacher-training institutions, that is, the coping with either severe behavior problems in addition to mental retardation.

Recommendations

Because of these results, it is recommended that perhaps the following courses of action might be undertaken:

(1) A more detailed study of EMR children from a behavioral problem point of view. This would require, perhaps, a greater sampling of classes with teachers responding not only on such instruments as the WTRIT but also the examination of classrooms by outside observers to determine whether or not there is, in their opinion, a behavior being exhibited which is interfering with the learning situation.

(3) If teacher-trainers accept the results of the WPPSI without further validation of these results, then it is necessary for them to examine teacher-training procedures and to determine whether or not additional training is required to assist teachers to cope with the problems of more severe behavior disorders.

(3) If districts accept the results of the WPPSI without further validation, this implies some remediation that may be required at the district level in order to assist teachers presently in the field to receive sufficient in-service training for them to learn techniques to cope with more severe behavior problems.

(4) Since these recommendations imply a joint effort by University teacher-trainers and district personnel, it might be well for the Oregon Board of Education to gather together a panel of interested personnel who are representative of these two types of agencies to discuss the most course of action, if any, that seems to be warranted.

TABLE I

Summary of All WPPSI Results

Age	N	Scores Above 21
8	30	10
9	83	9
10	60	83
11	36	14
12	18	10
13	20	10
14	21	10
15	14	10
16	10	10
17	22	0
Total	244	177
		47.1%

TABLE II

Summary of WPPSI Results of Selected Children

Age	N	Scores Above 21
9	23	9
10	40	23
11	36	14
12	28	20
Total	177	36
		47.1%

Table of Contents

Introduction 1

Background 1

Purpose 2

Methodology 2

Sampling 2

Exploration Results 3

Table 1 4, 5, 6

Table 2 7

Table 3 8, 9

Table 4 10

Conclusions 10

Summary 12

Introduction

This summary presents the salient results of a validity study of the diagnosis and placement of EMR pupils in Oregon. The complete data which provide the basis for this summary are filed and available for study at the Oregon Board of Education.

This study was, in part, initiated because of the outpouring of special classes for the educable mentally retarded by such well known special education leaders as Dr. Lloyd Dunn (1968). Dunn focuses on a number of critical issues, two of which are most pertinent to this study. First, the author indicates that a serious problem exists with regard to the type of child included in special classes. There are approximately 22,000 teachers of the mentally retarded employed by local school systems --- over 1/3 of special educators in the nation. In my best judgment about 60 to 80% of the pupils taught by these teachers are children from low socio-economic --- including Afro-Americans, American Indians, Mexicans, Puerto Rican Americans, those from non-standard English speaking families, disorganized, and inadequate homes and children from other non-middle class environments. It is my thesis that we must stop labeling these deprived children as mentally retarded. Furthermore we must stop segregating them by placing them into so-called special programs.

Second, Dunn maintains that a great deal of blame for this inadequacy in special class placement can be attached to the general gross procedures used in diagnosing a candidate for a special class.

These matters have been discussed by other authors. Sarason (1968) contends that mental retardation is not a misnomer for the group Dunn described, but rather an accurate assessment of potential. Kenighsun (1968) reported a strong relationship between the incidence of mental retardation and its concentration in low socio-economic areas as a result of a comprehensive study of Chicago. Ward (1968) maintained that we are now estimating that at least 50% of the children in the 70 to 80 IQ range come from culturally disadvantaged homes. Both Kirk (1963) and Sarason (1959) have recognized this fact but were quick to make distinction between organic and socio-culturally caused mental retardation.

In relationship to the diagnosis and labeling charge made by Dunn, there seems to be general recognition of the problem of inadequate diagnosis and consequent misplacement and misplanning. Kirk (1963) recognizes this situation and indicates that the mentally retarded child must have a special diagnosis including medical, social, psychological, and educational evaluations before he is assigned to a special class. Ebersole (1968) maintains that a child has not had the benefit of a complete diagnostic evaluation unless he has had both a medical and behavioral assessment. Sarason (1967) opts for a complete approach to the problem, describing three approaches to diagnosis and education planning --- etiological, diagnostics --- correlational, and task analysis.

The Dunn study, therefore, caused at least in part, the Oregon Board of Education to re-examine its diagnosis and placement methodology for EMR pupils. The purpose of this study was to determine if a separate evaluation of these pupils would cause a different recommendation for placement of the child. The study was, in essence, a validity study of the placement procedures within the state of Oregon.

Background

Thus, this study planned to examine systematically the educable mentally retarded population within the state to determine the percentage of pupils in special classes for the educable mentally retarded (EMR) who are placed therein for reasons other than mental retardation.

Oregon Statute 343.015 defines mental retardation as such: "Mentally retarded children" means children between the ages of 5 and 21 who (a) because of well established retarded intellectual development are incapable of receiving a common school education through regular classroom instruction but whose intellectual ability would indicate a possible scholastic attainment of third grade level with the benefit of special instructional methods, and (b) are competent in all aspects of the school environment except the academic."

In Oregon a pupil shall be certified as mentally retarded in order to receive services in the special class program for the educable mentally retarded. Diagnostic and evaluative evidence must support the fact that the pupil is mentally retarded and not merely functioning as mentally retarded because of some other educationally limiting problem.

The criteria Oregon uses in determining eligibility for special class placement were derived from the American Association for Mental Deficiency (AAMD) definition of mental retardation. The criteria for certifying an EMR pupil are specifically based upon the following supportive information: individual psychological evaluation; prior school history; developmental history; family and home environment; and a physician's examination to determine (a) whether there are any physical factors contributing to the pupil's educational problem, (b) whether treatment is needed prior to the offering of special class placement, and (c) whether any other specialized type of examination is indicated.

It is implied that most mentally retarded pupils fall within the 50 to 70 - 80 range of intelligence as measured on an individual psychological examination; however, Oregon statute does not stipulate any IQ score and thus allows borderline pupils to receive special class placement provided additional evidence substantiates mental retardation. Further, the Oregon definition recognizes the variety of

situations in which mentally handicapped persons are found and the complexity of the variable which determine their adequacy.

Purpose

The purposes of this study are:

(1) To arrive at some determination of the percentage of pupils who are in special classes for the educable mentally retarded in Oregon for reasons other than mental retardation and then to determine the validity of placement procedures.

(2) To examine the adequacy of instruments used in certifying EMR pupils.

Methodology

To accomplish the above listed purposes, it was decided that a diagnostic evaluation on a sample of children in EMR classes was needed to determine the validity of pupils' placement.

An Advisory Board was established to help determine the criteria for the diagnostic evaluation. It was agreed by the board that a standard pediatric physical examination would be performed which would include visual and hearing tests. X-rays and electro-encephalograms would be administered if deemed necessary by the physician. To determine IQ, the WISC or WAIS tests would be administered, depending upon the age of the child. The educational tests to be administered to all children were the Phonic and Spelling sub-tests of the Durrell Analysis, the Word Study and Word Meaning sub-tests of the Stanford Reading Test, the Gates-McGinitie Vocabulary and Comprehension Tests and the Mathematics sub-test of the Wide Range Achievement Test. In addition, it was decided that the Bolton Behavior Problem Identification Checklist was to be completed by the teachers for all children in the sample.

Although it would have been ideal to have all the examinations conducted by the same evaluation team, this was not possible because of constraints of finance and distance in addition to heavy workloads at examination facilities. Consequently, children were examined at Fairview Hospital and Training Center, Crippled Children's Division, University of Oregon Medical School, Clackamas County Child Development Center, the Dalles Center, University of Oregon, and by contracted psychologists. In addition, in many instances, a private physician was contracted to conduct the medical examination.

Sampling

It was determined that only those children presently certified as educable mentally retarded during 1967 and 1968 would be sampled. EMR children were presently certified during these years.

A ten percent sample of these children was desirable. Since age differences and sex differences might be important, a stratified random sampling procedure was adopted.

Age differences were considered a variable factor as that children are most often certified as educable mentally retarded at age 9 through 11, when they are first recognized as being academically retarded in elementary schools. In Oregon there is no other significant age peak of certification for this particular population; however, eligible pupils have been certified at the junior and senior high school level when it is determined that they are functioning at a lower level than their peers. Certification of pupils at later chronological ages or during the junior and senior high school levels may occur for the following reasons: (1) EMR pupils from other states have moved to Oregon and must be certified as eligible special class pupils. (2) Lack of parent permission necessary for placement in the special class program has not been received by the school until the pupil is older. (3) An eligible EMR pupil may transfer from a district providing no special class program to a district providing service at the appropriate class level. (4) Change of certification disposition from trial placement to permanent placement in special class is often made after the pupil is older. (5) A special class program may not be provided for eligible EMR pupils in districts where pupils [illegible] program of sufficient population density to maintain an EMR class feasible nor mandated by Oregon statute until a sufficient number of eligible pupils are identified.

Area differences were considered in order to obtain an inclusive picture of certification procedures throughout the state and because it was felt that metropolitan areas have more comprehensive diagnostic and evaluation services available to them than many smaller and more remote school districts.

Therefore, sampling was stratified by age and by area. Ages were divided by two groups (ages 6 to 11, with the group over 11 being combined into one age grouping. The state was divided into six areas: Portland Metropolitan area, Willamette Valley area, Coastal area, Southern Oregon, Northeastern Oregon, and Central Oregon.

To reach the 100 desired sampling figure, 117 children were randomly selected utilizing the stratified format. An alternate sample of 117 was selected since difficulty was anticipated in having all selected children participate in the re-evaluation.

After these initial samples were selected, letters were sent to each of the districts with children in the sample. These letters from the Oregon Department of Education described the program that was being conducted, what was to be accomplished by it, and requested that the districts cooperate in the endeavor.

One week later the Teaching Research Division of the Oregon State System of Higher Education, who had been contracted to conduct the study for the Oregon Board of Education, contacted the school districts to obtain current

addresses of the children selected to the primary and alternate samples. These phone calls revealed that of the primary sample of 177 children, 40 children were no longer with the districts as indicated by the Oregon Board of Education records. In the alternate sample of 177 names, 37 children were no longer with the districts.

After current addresses were obtained from the school districts, parents were contacted to determine whether or not they would allow their child to be re-examined.

Of the initial sample of 314 children, 99 were not available to be included in the survey. 79 had either withdrawn from school or had moved out of the state and their destination was not known. Of the remaining 20, five had been returned to regular programs and the remaining 15 had moved to another known location but were not now in special programs or they had moved into an institution or special home.

Of the remaining 215 children who were available for examination, 118 could not be examined either because the parents would not consent to the re-examination or because the children failed to keep appointments for examinations once they were scheduled. In the latter instances, efforts were made to reschedule re-examinations. Thus, only 97 children were examined out of those, some failed to obtain either the medical examination or the psychological and educational examinations. 91 medical examinations and 89 psychological examinations were completed.

Because of poor return from the primary and alternate samples, it was decided to choose additional children for re-examination. Directors of special education in Portland, Salem, and Springfield were contacted to obtain an additional sample of 99 children. Of these, only 11 medical examinations and 21 psychological and educational testing examinations were administered. Again, lack of parental consent and failure to keep appointments prevented the administration of additional examinations.

Of the entire sample, 106 children received medical examinations, 130 children received educational testing and psychological testing, and 244 Walker Behavior Checklists were returned by teachers of the children. However, in only 97 cases were all four of these pieces of information received on a child.

Since the primary focus of this study was to validate the procedures being utilized by the Oregon Board of Education to certify such children, it was felt that it was essential to examine critically these 97 cases since the information reported about them with the exception of the Walker Behavior Checklist was indicative of the type of information which the Oregon Board of Education receives for certifications.

However, there was concern about whether these 97 were a bona fide sample of the population of 1503 certified EMR students for 1967 and 1968.

Although a 10% sample had been specified as desirable, a 6.36% sample, which the 97 cases represent, is considered adequate in size.

To determine whether the 97 was an adequate sample by age and area, chi square statistical analyses were conducted. There was found to be no significant differences between the sample and the population when compared both by age and area; p values of .793 and .837 for age and area, respectively, were computed.

Evaluation Results

Each child was administered either a WISC or WAIS, depending on his age, to determine IQ. In addition, each child was administered the Phonic and Spelling sub-tests of the Durrell Analysis, the Word Study and Word Meaning portions of the Stanford Reading Test, the Vocabulary and Comprehension sections of the appropriate level Gates-MacGinitie Tests and the Math sub-section of the Wide Range Achievement Test. Each teacher was asked to complete the Walker Problem Behavior Checklist. All data were compared with data previously obtained on the child.

IQ scores of 50 to 70-80 are considered to be the range of scores usually acceptable for inclusion in an EMR class. IQs below 50 generally indicate the child might better function in a class for the trainable retarded while IQs above 70-80 indicate the child might better function in a regular class or, in the case of some children where learning disabilities can be more accurately identified, the child might better be placed in an extreme learning problems class. However, a strict interpretation of the numerical value of these IQ scores must be avoided, for the standard error of measurement for these scores indicate that they should not be treated as definitive measures. Moreover, as will be demonstrated in this study, the lack of reliability among different examiners, all supposedly well qualified, leads one to be cautious about the interpretations of any individual IQ score.

All educational tests are reported in grade level equivalents and thus, one can conclude that normal functioning for an 8 year old is grade level 3, for a 9 year old is grade level 3, and so on.

Although requirements were specified for the medical examinations, they show a good deal of variability as far as quality is concerned. This occurs because of the impossibility of having all children examined at centralized clinics where a standardized examination would be conducted. Private physicians could not be required to conduct the examination as specified, although many of them did give the requested complete physical examination and in some instances did more than requested. The results of this series of examinations for the sample of 97 are reported in Table I. Table II indicates the same information in a different format.

TABLE 1.

I.Q. Scores, Medical Results, Educational Test Scores
for Sample of 97

Age	Student	Grade	I.Q.	Medical Problems	Gardner Phonics	Analysis Spelling	Stanford Word Study	Reading Word Meas	Gates-Vocab.	Proficiency in Comprehension	Word Fluency
7	1	1	98	yes	80	60	90	1.1	1.1+	80	1.0
8	2	1	98	no	70	50	1.0+	1.0	1.1+	1.1+	0.9
7	3	11	84	Psychotic	80	60	80	1.2	1.0	90	0.8
8	4	11	97	yes	1+	1.1	1.1	1.1	1.0	1.1+	1.0
8	5	11	73	no	80	60	1.0	1.2	No	60*	1.0
8	6	7	73	Hyperactive	1+	1+	1.0	1.0	1.1+	1.0	1.0
8	7	11	83	no	1+	1+	1.1	1.1	1.1+	1.1	1.0
7	8	11	92	Epileptic	1+	1+	1.1	1.1	1.0	1.0	1.1
8	10	111	74	yes	1+	1+	1.1	1.1	1.0	1.0	1.0
8	11	11	81	Epileptic	90	80	1.1	1.1	1.1	1.1	1.0
8	1	11	82	no	80	60	1.1	1.1	1.0	1.1	1.1
8	2	11	83	no	1+	1+	1.1	1.1	1.1	80	1.0
8	3	1	94	yes	80	60	70	80	80	1.0	0.9
8	4	11	97	yes	80	60	1.1	1.1	1.0	1.0	1.1
8	5	1	67	no	1+	1+	1.1	1.1	80	80	1.0
8	6	1	73	no	80	60	1.1	1.0	1.1	1.1	1.0
8	7	11	83	no	80	60	1.0	1.0	80	80	1.1
8	8	11	88	yes	80	60	1.1	80	No	50*	1.0
8	9	1	88	no	80	60	1.0	1.1	1.1	80	1.0
8	12	11	98	yes			80+				
8	12	11	73	no	1+	1+	1.1	1.1+	1.1	1.1+	1.1
8	13	1	68	no	80	60	80	80	80	80	0.8
8	14	11	73	no	1+	1+	1.0	1.1	1.1	1.1+	1.1
8	15	11	73	no	1+	1+	1.1	1.1	1.1+	1.1+	1.0
8	17	11	84*	yes	1+	1+	1.1	1.1	1.0	1.0	0.9
10	1	1	96	yes	80	60	1.1	1.1	80	80	1.0
10	2	11	73	no	1+	1+	1.0	1.0	1.1	1.0	1.0
10	3	11	94*	yes	80	60	1.1	1.1	1.0	1.1	1.1
10	4	11	82	no	80	60	90	1.0	1.1	1.1	1.0
10	5	1	73	yes	1+	1+	0.9+	0.9+	90	90	1.0
10	6	11	93	yes	1+	90	1.1	1.1	1.1	1.1	1.0
10	7	11	78	yes	1+	1+	1.0	1.1	90	90*	1.0
11	8	11	93	no	80	60	1.1	1.1	1.0	1.0	1.0

Age	Student	Nurse	I.Q.	Medical Evidence	Overall Physics	Analytic Ability	Standford Word Study	Reading Word Meas	Cerebral Vocab.	Mathematics Comprehension	Chief Mental
10	11	11	81	yes	88	88	1.3	1.1	1.0	1.0	1.0
10	12	10	77	no	89	2+	1.0	1.9	1.0	1.3	1.2
10	13	1	79	no	1+	2+	1.7	1.3	90	1.0	1.0
10	14	9	81	Negative	87	88	1.2	1.9	1.0	88	1.0
10	17	1	91	yes	97	99	88	88	88	89	0.0
10	20	12	94	yes	88	88	1.0	1.0	1.0	88	1.0
10	21	11	91	yes	97	99	1.3	1.2	1.1	1.0	1.0
10	22	1	73	yes	89	2+	1.4	1.0	1.2	1.1	1.1
11	1	1	78	no	89	99	1.1	1.7	1.3	1.0	1.0
11	2	9	74	no	89	99	99	1.2	90	99	1.0
11	3	11	91	yes	89	1	1.0	1.1	1.7	1.4	1.0
11	4	11	79	yes	1+	2+	1.1	1.2	no	no[3]	1.7
11	5	11	82	yes	1+	2+	1.1	1.0[1]	99	no[3]	1.0
11	6	1	72	no	1+	2+	1.1	1.0	1.1	1.1+	1.0
11	7	10	68[6]	yes	89	99	1	1.0	1.1	1.2	1.0
11	8	11	74	no	89	99	1.0	1.1	1.1	99	1.0
11	8	11	74	no	89	99	1.0	1.1	1.1	99	1.0
11	8	11	87	yes	89	99	1.1	1.1	1.1	1.1	1.0
11	10	10	68	yes	89	99	1.1	1.0	1.1	1.1+	1.0
11	11	9	83	yes	98	98	1.0	1.0	1.1	1.0	1.0
11	14	11	97	no	89	99	1.1	1.1	1.1	1.1	1.0
11	11	11	73	no	1+	1	1.1	1.1	1.1	99	1.0
11	17	111	91	Negative	99	1	1.0	1.0	1.1	1.0	1.0
11	1	11	87	yes	1+	2+	96	1.1	1.1	96	1.0
11	2	11	77	yes	89	99	1.1	1.0	1.1	1.1	1.0
11	2	11	96	no	89	1	1.1	1.1	1.1	1.1	1.1
11	3	1	93	no	89	99	1.1	1.1	99	99	1.0
11	4	11	96	no	1+	2+	1.1	1.0	1.1	1.1	1.1
11	8	9	92	yes	89	99	1.1	1.1	1.1	1.1	1.0
11	11	1	84[6]	yes	89	99	1.1	1.1	1.1	1.1	1.1
11	11	11	87	yes	89	99	1.0	1.1	1.1	1.1	1.1
12	1	1	114	no	96	1	1.1	1.1m	1.1	1.1	1.1
12	2	9	92	yes	1+	2+	1.0	1.1	1.1	1.0	1.1
12	3	11	78	no	1+	1	1.1	1.0	1.1	1.1	1.1
12	4	11	99	yes	1+	2+	1.0	1.1	1.1m	1.1m	1.0
12	5	1	83	yes	1+	2+	1.1	1.0	1.1	1.1	1.1
12	6	111	83	no	1+	1	1.0	1.1	1.1	1.1	1.0
12	7	10	98	no	1+	1	1.1	1.1	1.1	1.0	1.0

Rank	Student ID	Score	I.D.	Critical Evidence	Overall Fluency	Overall Coherence	Standard Work Study	Reading Word Power	Cursive Vocab.	Multimedia Comprehension	Word Effect
13	8	19	84	yes	b+	a	3.3	3.3	3.7	4.0	3.6
13	9	17	85	yes	B	B	3.0	3.3	3.3	3.3	3.3
13	10	1	87	yes	B	B	3.7	3.3	3.3	3.3	3.3
13	11	13	88	no	B	b+	3.0	3.3	3.7	3.0	3.0
13	12	11	91	yes	B	B	B	3.3	B	B	3.0
13	14	19	79	no	b+	B	3.0	3.0	3.3	3.0	3.3
14	1	4	84	no	b+	B	3.3	3.0	3.3	3.3	3.0
14	2	2	73	no [illegible]	b+	b+	3.3	3.0	3.3	3.0	3.0
14	3	111	89	Yes [illegible]	B	a	3.0	3.7	3.0	3.3	3.0
14	6	13	84	no [illegible]	B	B	3.33	3.33	3.7	3.0	3.3
14	8	3	87	Yes [illegible]	b+	b+	3.0	3.7	3.3	3.3	3.3
14	7	13	90	no	B	B	3.3	3.7	3.3	3.3	3.0
14	8	11	84	no	b+	b+	3.3	B	3.3	B	3.0
14	9	13	87	yes	B	B	3.0	3.3	3.3	3.0	3.0
15	1	1	73	no	b+	B	3.0	3.3	3.3	3.0	3.0
15	3	111	84	yes	b+	b+	3.3	3.3	3.3	3.3	3.3
15	4	1	89	no	b+	b+	3.3	3.0	3.7	3.3	3.3
15	5	13	93	no	B	B	3.7	B	B	3.3	3.3
15	6	1	91	yes	b+	B	3.3	3.3	3.3	3.3	3.0
16	2	8	74	yes	B-C	3.0	3.0	3.0	3.3	3.3	3.3
16	3	19	83	yes	b+	b+	3.0	3.3	3.0	3.3	3.7
16	5	1	73	no	b+	B	3.0	3.0	3.3	3.3	3.0
16	6	13	81	yes	B	3	3.0	3.0	3.7	3.3	3.0
17	1	13	87	no	3.3	B	B.7	3.3	3.3	3.3	3.3
17	2	19	88	no	b	3	3.0	3.0	3.3	3.7	3.0
17	4	13	87	yes	B	3	3.3	3.0	3.3	3.3	3.3
17	5	13	81	no	B	B+	3.3	3.3	3.3	3.0	3.3

B = B?

BB = Below Basic
B1) = Not administered
BB) = Non-reader
a = WWAT (Speaking) 3.3; WWAT (Reading) 3.0
b = WWAT (Speaking) 3.0; WWAT (Reading) 3.3
(a) = No academic ability could be elicited because of extreme speech problem
d = Less than score (60)
e = Classroom trouble before 3.3, Feat., May have affected score downward.
f = WWAT (Speaking) 3.7; WWAT (Reading) 3.3
g = Child's behavior interfered with obtaining valid score
h = WWAT (Speaking) 3.0; WWAT (Reading) 3.0
i = WWAT (Speaking) 3.3; WWAT (Reading) 3.0
j = Team invalid; examiner error.

TABLE II.

Distribution of IQ Scores

IQ Rge	# of Ch
101 - 105	1
96 - 100	1
91 - 95	1
86 - 90	4
81 - 85	8
76 - 80	13
71 - 75	14
66 - 70	17
61 - 65	15
56 - 60	7
51 - 55	7
46 - 50	5
Below 46	3
Totals	97

An examination of the educational tests appearing in Table I, that is the Durrell Analysis (Phonic and Spelling), the Stanford Reading (Word Study and Word Meaning), the Gates-MacGinitie (Vocabulary and Comprehension and the Wide Range Achievement Test (Math), indicates that all the children were operating below their grade level in all areas with the exception of a few individuals on the Phonic part of the Durrell Analysis Test. These were all at the lower grade levels. These data correlate with information available from the files of the Oregon Board of Education which indicate that in all cases these children, when originally certified, were functioning at academic levels far below norm.

When examining the medical results achieved with these 97 children as opposed to previous medical information available, one finds in numerous instances differences between this medical examination and previous medical examinations relative to the physician's opinion as to whether or not there is medical evidence for mental retardation. In ten cases the physician in the present medical examination found evidence or cause for mental retardation which were not uncovered in previous examinations. On the other hand, in six instances the physician during this examination did not uncover information which previous physicians did discover as evidence for mental retardation. In the seventeenth case, which must be considered unusual, the physician indicated that he believed the child was emotionally disturbed. The Walker Behavior Checklist, which is normally not a part of the certification procedure, but which was administered to obtain some additional information during this study, reveals support for the physician's opinion.

The sixteen cases in which a variation in opinion was noted represent 16.5%. Yet in no instance is this information important enough to indicate that the previous certification for mental retardation was not a valid one.

Table III which contains comparisons of medical and IQ data obtained during the present examination and previous examination indicates those cases where the medical examinations were different.

Table III also provides the information about the present IQ scores as compared to previous IQ scores. It is this element of information which becomes now most important in determining the validity of the previous certification process. The medical information and educational information by themselves do nothing but lend credence to the accuracy of the previous evaluation.

The examination of the IQ data indicates that during the present IQ testing 17 children received scores of 81 or above. These scores are high enough to indicate that the child might function in a regular class.

Because of the high IQ score that the child has received in this present testing it is necessary to examine each of these cases individually to make a determination whether or not the previous information is erroneous about the child and whether the child has been misplaced in an EMH class.

An examination of child #- 7, 8- 19, 9- 2, 10- 8, and 10- 14 indicates that the present IQ score is not significantly different from the previous IQ score and that in all instances the scores range from 81 to 91 during the present testing. All of these children are functioning well below their grade level when one examines their educational tests which are enumerated in Table I. Thus, based on the criteria established by the Oregon Board of Education these children are probably well placed in the EMH class.

In the case of child 7- 8 an interesting phenomenon occurred. The child was first examined psychologically May 21, 1968 when the psychologist indicated that the range of intelligence for the child was somewhere between 81 and 94. This is reflected by the score of 90 in the previous IQ column of Table IV. Yet on November 27, 1967, the school

TABLE XXX.

Comparison of Natural and IQ Rate
Obtained during Present Examination and Previous Examinations

Child Age	Present IQ	Previous IQ	Present Mental Evidence	Previous Mental Evidence Difference	Child Age	Present IQ	Previous IQ	Present Mental Evidence	Previous Mental Evidence Difference
7 - 5	40	47/48	yes		10 - 0	74	67*	yes	
9 - 2	69	84	no	5	10 - 2	72	72/72	no	
7 - 3	64	58	yes		10 - 3	69	63	yes	
8 - 6	87	85	yes		10 - 6	82	84	no	
8 - 5	76	68	no		10 - 5	72	67	yes	
8 - 6	72	71	questionable/ doubtful	5	10 - 6	74	72*	yes	
8 - 7	83	79	no	5	10 - 7	78	69*	yes	
7 - 8	82	85/74*	yes		10 - 8	76	72	no	
8 - 10	76	64	yes		10 - 10	84	78/76	yes	
8 - 10	81	77	no questionable		10 - 11	79	84/80	no	
9 - 1	82	78/76	no	5	10 - 12	74	72/70	no	
9 - 2	85	77	no		10 - 14	84	79	no questionable	
9 - 3	94	89	yes		10 - 15	91	69*	yes	5
9 - 4	104	92/90/95	yes		10 - 20	86	84	yes	
9 - 5	87	82/0	no		10 - 21	81	80	yes	
9 - 6	84	80	no		10 - 22	79	64*	yes	5
9 - 7	81	79*	no		11 - 1	78	84/82	no	
9 - 8	96	88	yes		11 - 2	84	84	no	
9 - 9	88	84	no		11 - 3	94	82/84/92	yes	5
9 - 10	94 (over)	84*	yes	5	11 - 4	79	71	yes	5
9 - 10	76	74/72	no		11 - 5	82	78*	yes	
9 - 10	88	82*	no	5	11 - 6	72	67	no	
9 - 10	72	69*	no		11 - 7	68	below average	yes	
9 - 10	71	67	no		11 - 8	74	72	no	
9 - 10	84	76	yes		11 - 9	87	77*	no	
					11 - 10	68	74	yes	

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	*
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	*
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]

special education classroom scored the child with a WISC on which the child achieved a score of 74. In the present evaluation the child scored 97. In light of the two IQ scores of 90 and 97, it is strongly suspected that this child may well be misplaced in an EMR class. This conclusion is reached despite the medical evidence for mental retardation because the evidence consists of nothing more than a physician's opinion which indicates a "suspicion of cerebral dysfunction". In fact, on June 14, 1968 during a physical examination one of the physicians stated that it was difficult to pinpoint whether the child has a behavior disorder or cerebral dysfunction. As an additional piece of evidence to perhaps support the misplacement of this child, a Walker Behavior Checklist indicates a score of 57 which is far above the score of 21 which usually indicates a behavior disorder.

Table IX.

Level of Grade Equivalent IQ Scores and Previous IQ Scores

Child's Name	Present IQ	Previous IQ	Misplaced Indicated
6 - 7	90	70	yes
7 - 8	90	86/75	yes
8 - 10	91	77	
9 - 0	93	77	
10 - 6	96	79	
10 - 10	90	77	
11 - 1	100	72	
12 - 0	98	67	yes
12 - 6	94	77/84	
13 - 6	98	68	
14 - 0	91	78	yes
15 - 6	92	77	yes
17 - 1	97	72	
17 - 4	97	72	yes
17 - 5	97	68	
9 - 11			

In the case of children, 14 - 6, 15 - 1, and 15 - 4 the present IQ range correlates well with previous IQ scores. Although the IQ's are above 91 during the present testing and are slightly higher than previous IQ testing, the children are functioning at such a low level educationally, as evidenced by their educational test scores in Table X, that a placement in a special class seems mandatory.

In the case of children 13 - 1, 14 - 1, 15 - 6, 17 - 1, 17 - 6, and 17 - 0 the IQ scores are all above 91 during the present testing and range as high as 104. They are all significantly different than previous IQ scores. An examination of the individual data for each of these children reveals nothing that would indicate that the child had been previously misplaced in a special class. The educational testing scores which these children achieved during the present round of tests indicate that they are not capable of functioning at their grade level in normal classes. Although their high IQ scores during the present testing series cause us to pause before we recommend their placement in an EMR class, their low academic performances indicate that they do need special help. The special help must come either from the EMR class or some other type of special schooling, perhaps an extreme learning problem class. In any case, in all six of these instances the children should be re-tested once again and further determinations made whether they may function better in an extreme learning problem class or should be retained in the EMR class. Because of their low academic level of functioning, it does not seem possible that they should be replaced into a normal class.

It is further interesting that all of these children are age 13 and above which means they are well advanced in school and would find it most difficult to cope with a normal class environment based upon their functional educational level.

Conclusions

Thus, an examination of the entire range of 97 cases causes us to reach these conclusions:

(1) In only one instance can we state with a certain degree of assurance that the child has been misplaced in the EMR class, and this is in the case of child 7 - 0. In six instances, children 13 - 1, 14 - 1, 15 - 6, 17 - 1, 17 - 6, and 17 - 0, a re-examination might be indicated based upon their present IQ testing. However, when examining the child's performance educationally, we are forced to conclude that the child had been properly placed in an EMR class. It is believed that all other children of the 97 are properly placed. Reducing these conclusions to percentages, we find that only 1% of the children definitely were certified improperly and we find an additional 6.2% requiring further examination but probably correctly certified.

In relation to the second purpose of this study — the examination of the adequacy of documents used in certifying EMR pupils, this study must discuss each of the

elements of information separately, that is the IQ, the medical report, and the education information.

(2) Relative to educational information it would seem that the reporting of standardized educational test scores may be helpful, especially if the child scores above 80 in IQ. Such a score might well indicate a child who is deficient in only certain learning areas. The standardized scores will help pinpoint those deficient areas. Since mathematics and reading are usually considered the prime academic deficiency areas, a system of reporting standardized test scores in these areas is recommended, although it is certainly not limited to those areas.

(3) In regard to the medical examination, certain specific information should be required. However, it is recognized that it is much easier to state the requirement than it is to obtain the information. This deficiency will exist as long as the child has the freedom to be examined by his family physician. The experience of this study indicates that family physicians, despite the fact that they may be asked for specific information, are often reluctant to conduct the examinations as requested or do not have the facilities for so doing. Of course, the utilization of a regional diagnostic center or the utilization of certain specified physicians affiliated with school districts might well help to solve this particular problem.

In any event, the information that is deemed absolutely mandatory before a child is certified as eligible for a special class is an extensive audiological examination and a complete eye examination. The necessity for this is amply demonstrated by the fact that in this present examination, in five instances (1.3%) children were discovered who had either serious ear difficulties or sight deficiencies which according to the records available had not previously been uncovered. In addition to this complete audiological and visual testing, the physician should be required to submit a detailed medical history about the child. Often times this provides indicators of medical cause for mental retardation and might be useful information. If the medical history warrants, the physician should arrange for the student to receive an electro-encephalogram examination so as to determine whether or not brain damage, remediable by this examination, can be discovered.

In addition to the above, a standard physical examination should be administered. The forms required for the submission of this physical information should be designed so that the visual and audiological information and electro-encephalogram information are pinpointed on the form.

(4) The evidence produced by the present study relative to IQ score indicates that IQ scores may be less reliable and valid than frequently claimed. This fact becomes especially apparent when one examines the IQ score in the present evaluation compared to IQ score achieved in previous evaluations. To extend the examination regarding the IQ score, consider all 139 psychological tests administered during this round of examinations instead of merely the 97. Score differences were noted as significant in 47 cases. This variance was determined by an examination of the standard error of measurement. If the two tests varied beyond the acceptable range as indicated by the standard error of measurement, they were considered to be at variance at a significant level (.05). Of the 47 which significantly varied, 23 of the present evaluations were lower than previous and 24 were higher. There was no pattern to the lower or higher scorings except that in age groups 15, 16, and 17, nine of the ten scores that were at variance were higher than those previously administered.

It is difficult to explain this variance. Presumably all of the test administrators, both during the present evaluation and the previous evaluations, were qualified to administer these tests. It is known that during the present evaluation all were qualified psychometrists who had experience in administering the WISC and WAIS. The personnel who administered the previous tests were, at least by indication of their title and position, qualified to administer a valid test. An examination of the scores achieved with specific examiners indicates that all examiners administered tests which varied with previous scores. None of these variances were in a predominant direction for any examiner. All examiners also administered tests which were not at variance. No one examiner was found to have an inordinate number of scores at variance with previous scores.

The fact that this variance exists is cause for concern. If such variance is obtained when supposedly qualified psychologists are administering IQ tests to children for certification for special classes, one must pause and reflect upon the value of these tests before placing a child in an EMR class with this as the main criterion. School districts might well consider, especially in those instances where the IQ ranges above 70, the calling upon another psychologist to

administration as IQ test. Again, it might be well if these tests could be administered in diagnostic centers where one or two psychologists might be available to conduct tests of different types upon the child to get a more accurate reading of the child's IQ.

(7) the updating and revision of the Oregon Board of Education records and files of special education students is considered mandatory. This need was demonstrated by the fact that 24.5% of the sample chosen was no longer in the special education program indicated in the records of the Oregon Board of Education. A computerized record system is recommended.

Summary

In summary, this study reports that only one child out of a sample of 87 was inappropriately placed in an EMR class. Although IQ scores ranged 19 other children with IQ scores above 80, the evidence of educational performance and medical evidence strongly validates his/her being placed in an EMR class.

In relation to the adequacy of tests generally utilized by the Oregon Board of Education, recommendations are made for the inclusion of more stringent visual and hearing acuity tests to be a standard part of the medical evaluation and an electro-encephalogram where considered appropriate. The inclusion of standardized educational tests is also recommended.

Finally, the results achieved on IQ testing and the variance indicated between the scores of the present IQ test and those previously administered indicates that school administrators must be wary of placing a child in an EMR class with the IQ score as the primary source of evidence.

Bibliography

BAUMGARTEL, BARBARA. Three Approaches to Diagnosis and Educational Planning for Children with Learning Disabilities. Reprint No. 139 from *Academic Therapy Quarterly*, Vol II, No. 4.

BLOOM, BENJAMIN. S. Stability and Change in Human Characteristics, (New York: John Wiley and Sons, Inc., 1964).

CLEMENTS, SAM D. *Minimal Brain Dysfunction in Children*, NINDB Monograph No. 3, Washington, D.C., U.S. Department HEW, 1966.

DUNN, LLOYD M. Special Education for the Mildly Retarded — Is Much of it Justifiable?, *Exceptional Children*, September 1968, pp. 5 - 22.

GAITHERSBURG. *Education as Metropolitan Areas*, Allyn and Bacon, Inc., Boston, Mass., 1968.

GAITHERSBURG, B.J. The Public Schools of Chicago, Board of Education of the City of Chicago, Illinois, 1964.

GIBLES, G.M. *Effectiveness of Special Class Placement for Educable Mentally Retarded Children*, Lincoln, Neb., U of Nebraska, 1968.

JOHNSON, G.O. Special Education for Mentally Handicapped — a Paradox, *Exceptional Children*, (1967), 43, 62 - 69.

KIRK, S.A. *Educating Exceptional Children*, Houghton-Mifflin, Boston, Mass., 1962.

KIRK, S.A. Research in Education, in B.O. Stevens and B. Heber (Ed). *In Mental Retardation*, Chicago, Ill., U of Chicago Press, 1964.

KIRK, S.A. and WEIDER, MILDRED B. The Chandler Census Plan on Mothers' *Exceptional Children*, 1958, 25, 229 - 233.

SARASON, S.B. *Psychological Problems in Mental Deficiency*, New York, Harper and Bros., 3rd Ed., 1959.

SEMMEL, MELVIN I. Contributions of Programs for the Mentally Retarded, in Tannenbaum, A.J., *Special Education and Programs for Disadvantaged Children and Youth*, Council for Exceptional Children, Washington, D.C., 1968.

SMITH, D.W., and SEMMEL, M.I. Effects of Three Educational Programs on Mentally Retarded Children, *Perceptual and Motor Skills*, 1967, 24, 179.

TANNENBAUM, A.J. *Special Educational Programs for Disadvantaged Children and Youth*, The Council for Exceptional Children, Washington, D.C., 1968, p. 71.

WHITE, W.A. Increased Concern for Disadvantaged Children and Youth: Implications for the Education of the Mentally Retarded, *Education and Training of the Mentally Retarded*, 1, 6 - 11, 1966.